### Introduction

- Pregnant women are susceptible to developing serious complications related to influenza (Healthy People, 2020).
- Estimates provided from the CDC document an overall range of flu-associated deaths from 3,000 – 49,000 (CDC, 2015).
- According to the Advisory Committee on Immunization Practices (ACIP) of the CDC (2011) and ACOG (2010), all pregnant women are recommended to have the inactivated influenza vaccination at any time during the pregnancy.
- Pregnant women have the lowest vaccination coverage rates among adult populations based on national data (Lu, Bridges, Euler, and Singleton, 2008).
- Despite the ACIP (2011) and ACOG (2014) guidelines, only 44% of women surveyed in 2010-2011 flu season, 46.4% in 2011-2012, 50.5% in 2012-2013 season, and 52.2% in the 2013-2014 influenza season received the influenza immunization (Ding et al., 2014).

### Methods

#### Research Method/Design

This descriptive study utilized a self-administered questionnaire. The questionnaire survey design consisted of three parts: descriptive statistics, receipt of influenza immunization, and if no, the reason for not receiving the immunization. Participants’ attitudes about influenza immunization including vaccine safety and effectiveness that were adapted from the CDC (2011) survey.

#### Sampling Technique

The purposive, convenience sample was comprised of 60 pregnant women who were recruited from an office in a private obstetric and gynecology practice in Northern New Jersey.

#### Data Collection

- The pen and paper questionnaire was distributed and collected in August and September 2013.
- Participants anonymously and confidentially completed the questionnaire.
- Demographics on each participant were collected (age, race/ethnicity, education, and health insurance).
- Demographics, attitudes, and influenza vaccination coverage were aggregated, with no participant’s identifiers.

#### Data Analysis

- SPSS 19 was used to perform the following statistical analysis: descriptive statistics were reported as frequencies or percentages.
- Chi-square test of association between influenza vaccination and each descriptive statistic were calculated.
- Multiple correlations tested the relationship between attitudes toward influenza immunization and vaccination coverage among pregnant women.

### Results

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Ninety-six percent of the women were between the ages of 25-49.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Seventy percent of the respondents were white.</td>
</tr>
<tr>
<td></td>
<td>Ninety-three percent had completed a college degree or more than college degree.</td>
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<tr>
<td></td>
<td>Ninety-eight percent had health insurance.</td>
</tr>
</tbody>
</table>

### Attitudes about Influenza Immunization

#### Reasons for declining influenza immunization

<table>
<thead>
<tr>
<th>0.00</th>
<th>2.50</th>
<th>5.00</th>
<th>7.50</th>
<th>10.00</th>
<th>12.50</th>
<th>15.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>No vaccine covered by insurance</td>
<td>No vaccine available</td>
<td>Lack of knowledge about vaccination</td>
<td>Fear of side effects</td>
<td>Do not believe in benefit of vaccination</td>
<td>Do not believe it works</td>
<td>Do not want to be vaccinated</td>
</tr>
</tbody>
</table>

#### Chi-square test of independence – Efficacy and Safety

- Women who believed in the efficacy of the vaccination were more likely to get vaccinated then those who didn’t.
- Women who believed in the safety of the vaccination were more likely to get vaccinated then those who didn’t.

### Implications for Practice

- Pregnant women and infants aged 0 to 6 months have an increased risk for developing serious complications as a result of influenza infection (Fortner, Kuller, Rhee, and Edwards, 2012).
- Influenza immunization can reduce morbidity and mortality among pregnant women and also reduce risk to her neonate (Coonrod, Jiminez, Sturgeon, & Drachman, 2012).
- All pregnant women are recommended to have the influenza immunization during any trimester of pregnancy (ACOG, 2010, CDC, 2011).
- Understanding pregnant women’s knowledge, attitudes, and practices related to influenza immunization can help to improve vaccination coverage rates.
- Reducing barriers and increasing benefits are effective methods of changing preventive behaviors in large populations.
- Strategies must be employed to address knowledge deficits that prevent pregnant women from being immunized.
- Advanced practice nurses can take a lead role in understanding how and why women make decisions to accept or refuse the influenza immunization, employ cues to action, and educate accordingly.

### DNP Essentials

- Inter-professional collaboration (AACN, 2006)
- Immunization signifies an imperative population health approach

### References


### Participant

- Participant adapted from the CDC (2011) survey.
- Including vaccine safety and effectiveness that were addressed.
- For each descriptive statistic were calculated.
- The pen and paper questionnaire was distributed and collected in August and September 2013.
- Ninety-three percent had completed a college degree or more than college degree.
- Ninety-six percent of the women were between the ages of 25-49.
- Seventy percent of the respondents were white.